

Docket No. NEC01P069-MSb

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of

Tatsuya Usami

Serial No.: Not Yet Assigned

Group Art Unit: Not Yet Assigned

Filing Date: Concurrently Herewith

Examiner: Unknown

For: SEMICONDUCTOR DEVICE, SEMICONDUCTOR WAFER AND METHODS OF  
PRODUCING THE SAME DEVICE AND WAFER

Assistant Commissioner of Patents  
Washington, D.C. 20231

**PRELIMINARY AMENDMENT**

Sir:

Prior to examination on the merits and calculation of the filing fee, please amend the  
above-identified application as follows:

**IN THE SPECIFICATION:**

**Please amend the paragraphs beginning at page 13, line 18, as follows:**

Figures 2a-2d show one example of the method of the present invention for producing  
a semiconductor device.

Figures 3a-3b show another example of the method of the present invention for  
producing a semiconductor device.

**Please amend the paragraphs beginning at page 13, line 25, as follows:**

Figures 6a-6c show one example of the conventional method for producing a  
semiconductor device.

Figures 7a-7b show another example of the conventional method for producing a semiconductor device.

Figures 8a-8b show still another example of the conventional method for producing a semiconductor device.

Figures 9a-9b show still another example of the conventional method of producing a semiconductor device.

Figures 10a-10c show still another example of the method of the present invention for producing a semiconductor device.

Figures 11a-11b show still another example of the of the method of the present invention for producing a semiconductor device.

**IN THE CLAIMS:**

**Please amend the claims as follows:**

15. (Amended) The method of forming a multi-layered insulation film according to claim 9, characterized in that said semiconductor wafer is spin-coated with a solution containing said organic material of low dielectric constant and then thermally treated to form said first insulation layer, and said first insulation layer is thermally treated in atmosphere at 200°C or more, and 500°C or less, inclusive, and coated with said second insulation layer by plasma CVD method.

23. (Amended) The method of producing a semiconductor device according to claim 16, characterized in that said semiconductor wafer is spin-coated with a solution containing the organic material of low dielectric constant and then thermally treated to form said first insulation layer, and said first insulation layer is thermally treated in atmosphere at 200°C or more and 500°C or less, inclusive, and coated with said second insulation layer by plasma CVD method.

**Please add the following new claims:**

- 24. (New) The method of forming a multi-layered insulation film according to claim 10, characterized in that said semiconductor wafer is spin-coated with a solution containing said organic material of low dielectric constant and then thermally treated to form said first insulation layer, and said first insulation layer is thermally treated in atmosphere at 200°C or more, and 500°C or less, inclusive, and coated with said second insulation layer by plasma CVD method.

25. (New) The method of forming a multi-layered insulation film according to claim 11, characterized in that said semiconductor wafer is spin-coated with a solution containing said organic material of low dielectric constant and then thermally treated to form said first insulation layer, and said first insulation layer is thermally treated in atmosphere at 200°C or more, and 500°C or less, inclusive, and coated with said second insulation layer by plasma CVD method.

26. (New) The method of forming a multi-layered insulation film according to claim 12, characterized in that said semiconductor wafer is spin-coated with a solution containing said

organic material of low dielectric constant and then thermally treated to form said first insulation layer, and said first insulation layer is thermally treated in atmosphere at 200°C or more, and 500°C or less, inclusive, and coated with said second insulation layer by plasma CVD method.

27. (New) The method of producing a semiconductor device according to claim 17, characterized in that said semiconductor wafer is spin-coated with a solution containing the organic material of low dielectric constant and then thermally treated to form said first insulation layer, and said first insulation layer is thermally treated in atmosphere at 200°C or more and 500°C or less, inclusive, and coated with said second insulation layer by plasma CVD method.

28. (New) The method of producing a semiconductor device according to claim 18, characterized in that said semiconductor wafer is spin-coated with a solution containing the organic material of low dielectric constant and then thermally treated to form said first insulation layer, and said first insulation layer is thermally treated in atmosphere at 200°C or more and 500°C or less, inclusive, and coated with said second insulation layer by plasma CVD method.

29. (New) The method of producing a semiconductor device according to claim 19, characterized in that said semiconductor wafer is spin-coated with a solution containing the organic material of low dielectric constant and then thermally treated to form said first insulation layer, and said first insulation layer is thermally treated in atmosphere at 200°C or more and 500°C or less, inclusive, and coated with said second insulation layer by plasma

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CVD method.

30. (New) The method of producing a semiconductor device according to claim 20, characterized in that said semiconductor wafer is spin-coated with a solution containing the organic material of low dielectric constant and then thermally treated to form said first insulation layer, and said first insulation layer is thermally treated in atmosphere at 200°C or more and 500°C or less, inclusive, and coated with said second insulation layer by plasma CVD method.

**REMARKS**

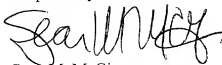
The specification has been amended to correct the identity of Figures 2a-2d, 3a-3b, 6a-6c, 7a-7b, 8a-8b, 9a-9b, 10a-10c and 11a-11b. Claims 15 and 23 have been amended to delete multiple-dependency and claims 24-30 have been added accordingly.

Attached hereto is a marked-up version of the changes made to the claims by the current preliminary amendment. The attached pages are captioned **“Version with markings to show changes made.”**

Early, favorable prosecution on the merits is respectfully requested.

Please charge any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-0481.

Respectfully submitted,



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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**In the specification:**

Figures 2a-2d show[s] one example of the method of the present invention for producing a semiconductor device.

Figures 3a-3b show[s] another example of the method of the present invention for producing a semiconductor device.

Figures 6a-6c show[s] another example of the conventional method for producing a semiconductor device.

Figures 7a-7b show[s] another example of the conventional method for producing a semiconductor device.

Figures 8a-8b show[s] still another example of the conventional method for producing a semiconductor device.

Figures 9a-9b show[s] still another example of the conventional method for producing a semiconductor device.

Figures 10a-10c show[s] still another example of the conventional method for producing a semiconductor device.

Figures 11a-11b show[s] still another example of the method of the present invention for producing a semiconductor device.

**In the claims:**

15. (Amended) The method of forming a multi-layered insulation film according to [any one of claims 9 to 12] claim 9, characterized in that said semiconductor wafer is spin-coated with a solution containing said organic material of low dielectric constant and then thermally treated to form said first insulation layer, and said first insulation layer is thermally treated in atmosphere at 200<sup>0</sup>C or more, and 500<sup>0</sup>C or less, inclusive, and coated with said second insulation layer by plasma CVD method.

23. (Amended) The method of producing a semiconductor device according to [any one of claims 16 to 20] claim 16, characterized in that said semiconductor wafer is spin-coated with a solution containing the organic material of low dielectric constant and then thermally treated to form said first insulation layer, and said first insulation layer is thermally treated in atmosphere at 200<sup>0</sup>C or more and 500<sup>0</sup>C or less, inclusive, and coated with said second insulation layer by plasma CVD method.